



ATTACHMENT A

Material Safety Data Sheet for

MICROPLANAR™ CMP9000™

sold by EKC Technology, Inc. of Hayward, CA



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier:
General Use:
Product Description:

MICROPLANAR™ CMP9000™
Metal CMP
Slurry

MANUFACTURER:
EKC Technology, Inc.
2520 Barrington Court
Hayward, CA 94545
(510) 784-9105

EMERGENCY PHONE NUMBERS:
(800) 424-9300
CHEMTREC
24 Hours/day, 7 days/week

2. COMPOSITION / INFORMATION ON INGREDIENTS

Colloidal Silica

WT. %
30-35

CAS Registry #
Trade Secret

	EXPOSURE LIMITS 8 hrs. TWA (mg/m3)		
	OSHA PEL	ACGIH TLV	OTHER
Colloidal Silica	2.67	10	None

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Translucent white slurry
May cause eye, skin, and respiratory tract irritation

POTENTIAL HEALTH EFFECTS

INHALATION

No adverse effects known.

EYE CONTACT

May cause irritation with temporary discomfort, mild redness, and dryness.

SKIN CONTACT

May cause irritation and dryness.

INGESTION

No adverse effects known.

TARGET ORGANS

Skin, eyes

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Overexposure may aggravate existing respiratory or skin conditions.

CARCINOGENICITY

National Toxicology Program (NTP) Not listed



EKC Technology, Inc.
A ChemFirst Company

2520 Barrington Court
Hayward, CA 94545
tel. +1 510 784-9105
facs. +1 510 784-9181

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IARC Monographs:

Not listed

OSHA:

Not listed

ACGIH:

Not listed

4. FIRST AID MEASURES

INHALATION

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.

EYE CONTACT

Flush eyes with water. If redness and irritation persist, contact a physician.

SKIN CONTACT

Flush skin with water. If redness and irritation persist, contact a physician.

INGESTION

Do not induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.

NOTE TO PHYSICIAN

Treat symptomatically as required by the condition of the patient.

5. FIRE FIGHTING MEASURES

Flashpoint:

Not flammable

Method:

None

Flammable Limits in Air
% by volume

Lower: None
Upper: None

Autoignition Temperature:

Not available

Extinguishing Media.

Material is not flammable.

UNUSUAL FIRE AND EXPLOSION HAZARDS

None known.

FIRE FIGHTING INSTRUCTIONS

Use water spray to cool containers and fire exposed surfaces. Shut off fuel to fire if possible to do so without hazard.

FIRE FIGHTING EQUIPMENT

Standard fire-fighting bunker gear.

HAZARDOUS COMBUSTION PRODUCTS

None known

6. ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES

If material becomes dry, wet before removal. Contain spill with absorbent material. Transfer absorbent and other contaminated materials to a UN approved covered container for disposal. Consult with Federal, State, and local regulatory agencies to determine acceptable clean-up level. Comply with Federal, State, and local regulations on reporting releases.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE

Storage in a cool, dry, well-ventilated area at 40° - 90°F (5° - 32°C) is recommended.

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GENERAL

Keep in original closed containers.

Prevent skin and eye contact.

Thorough showering at the end of the work shift is strongly recommended.

Work clothes should be laundered daily.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTION

RESPIRATORY PROTECTION

No respiratory protection is normally required. However, if material becomes dry and dust is present, use a NIOSH approved dust respirator

PROTECTIVE CLOTHING

Prevent skin contact. Use rubber or latex gloves.

EYE/FACE PROTECTION

Use safety glasses or chemical goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure: Not available
Vapor Density: Not available
Specific Gravity: 1.2-1.3
Evaporation Rate: Not available
Solubility in Water: None
pH: 4-9

Freezing Point: 32°F (0°C)
Appearance: White
Boiling Point: 212°F (100°C)
Odor: None
Physical State: Liquid dispersion

10. STABILITY AND REACTIVITY

GENERAL

This product is stable at normal temperatures and conditions of storage

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID

Freezing.

HAZARDOUS DECOMPOSITION

None known

HAZARDOUS POLYMERIZATION

Will not normally occur.

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11. TOXICOLOGICAL INFORMATION

INHALATION

No additional information available.

EYE CONTACT

No additional information available.

SKIN CONTACT

No additional information available.

INGESTION

LD₅₀, rat: 3160 mg/kg, practically non-toxic.

GENOTOXICITY

No information available.

TARGET ORGANS

Skin, eyes, lungs.

12. ECOLOGICAL INFORMATION

FATE

No information available

AQUATIC TOXICITY

No information available

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Consult 40 CFR, Parts 261 and 268, State, and local regulations for guidance on disposal of this product. Incineration at a facility with proper Federal and State issued permits is the recommended method for disposal.

CONTAINER DISPOSAL

Empty containers retain product residue. Observe all hazard precautions. Keep away from heat, sparks, and flames. Do not distribute, make available, or reuse empty containers except for storage and shipment of original product. Remove all hazardous product residue, and puncture or otherwise destroy empty containers before disposal. Consult 40 CFR, Parts 261 and 268 for guidance on disposal.

14. TRANSPORT INFORMATION

DOT/IMO/ICAO/IATA

Proper shipping name Not Regulated

15. REGULATORY INFORMATION

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Components of this product are listed on the TSCA Inventory.

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SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 Hazard Categories
313

None

This product is not subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION AND LIABILITY ACT)

Reportable Quantity (RQ):

None

We recommend you contact local authorities to determine if there may be other local reporting requirements.

16. OTHER INFORMATION

Exposure to Microplanar™ CMP9000™ should be kept to the lowest level possible. This material is for industrial use. Use only under the supervision of a technically qualified individual.

LABEL INFORMATION

NFPA CODES

Health	1
Fire	0
Reactivity	0
Specific Hazard	None

REVISION SUMMARY

Rev. New

Prepared by: Steven C. Dawson, CIH
Manager, Industrial Hygiene & Health

The information included in this document is taken from sources, or based on data believed to be reliable and given in good faith. No warranty is made, however, as to the absolute correctness of any of this information, or that additional or other measures may not be required under particular conditions. The data in this Material Safety Data Sheet relates only to the specific material designated and does not relate to use in combination with any other material or in any process. Please refer to the OSHA Hazard Communication Standard 29 CFR 1910.1200 for guidance in the use of this information.



ATTACHMENT B

Material Safety Data Sheet for

MICROPLANAR™ CMP9001™

sold by EKC Technology, Inc. of Hayward, CA



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier:
General Use:
Product Description:

MICROPLANAR™ CMP9001™
Tungsten CMP
Aqueous Alumina Slurry

MANUFACTURER:
EKC Technology, Inc.
2520 Barrington Court
Hayward, CA 94545
(510) 784-9105

EMERGENCY PHONE NUMBERS:
(800) 424-9300
CHEMTREC
24 Hours/day, 7 days/week

2. COMPOSITION / INFORMATION ON INGREDIENTS

	<u>WT.%</u>	<u>CAS Registry #</u>	
Alumina	Proprietary	Trade Secret	
EXPOSURE LIMITS 8 hrs. TWA (mg/m³)			
	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>DFG MAK</u>
Alumina	15	10	6

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Milky white suspension with no odor. May cause eye irritation and drying of the skin.

POTENTIAL HEALTH EFFECTS

INHALATION

No adverse effects known.

EYE CONTACT

May cause irritation.

SKIN CONTACT

May cause drying of the skin.

INGESTION

Not expected to be a hazard by this route.

TARGET ORGANS

Skin, eyes

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Overexposure may aggravate existing skin conditions.

CARCINOGENICITY

National Toxicology Program (NTP):	Not listed
IARC Monographs:	Not listed
OSHA:	Not listed
ACGIH:	Not listed



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A ChemFirst Company

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4. FIRST AID MEASURES**INHALATION**

None required.

EYE CONTACT

Immediately flush eyes with water. Have eyes examined and treated by a physician.

SKIN CONTACT

Flush skin with water. If redness or irritation occurs, seek medical attention.

INGESTION

Flush mouth with water. Consult a physician.

NOTE TO PHYSICIAN

Treat symptomatically as indicated by the condition of the patient.

5. FIRE FIGHTING MEASURES

Flashpoint:

None

Method:

None

Flammable Limits in Air
% by volume

Lower: None
Upper: None

Autoignition Temperature:

None

Extinguishing Media:

None required.

UNUSUAL FIRE AND EXPLOSION HAZARDS

No special precautions are necessary.

FIRE FIGHTING INSTRUCTIONS

Non-flammable

FIRE FIGHTING EQUIPMENT

Non-flammable

HAZARDOUS COMBUSTION PRODUCTS

None

6. ACCIDENTAL RELEASE MEASURES**SPILL OR LEAK PROCEDURES**

If material becomes dry, wet before removal. Contain spill with absorbent material. Transfer absorbent and other contaminated materials to a UN approved covered container for disposal. Consult with Federal, State, and local regulatory agencies to determine acceptable clean-up levels. Comply with Federal, State, and local regulations on reporting releases.

7. HANDLING AND STORAGE**STORAGE TEMPERATURE**

Do not store below 32°F (0°C).

GENERAL

Keep in original closed containers.
Prevent skin and eye contact.
Thorough showering at the end of the work shift is strongly recommended.
Work clothes should be laundered daily.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**PERSONAL PROTECTION****RESPIRATORY PROTECTION**

No respiratory protection is normally required. However, if material becomes dry and dust is present, use a NIOSH approved dust respirator.

PROTECTIVE CLOTHING

Prevent skin contact. Wear chemical resistant gloves.

EYE/FACE PROTECTION

Use safety glasses or chemical goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure:	Not available	pH:	8
Vapor Density:	>1 (Air = 1)	Appearance:	Milky-white
Specific Gravity:	1.13 @ 25°C	Boiling Point:	212°F (100°C)
Evaporation Rate:	Not available	Odor:	None
Solubility in Water:	Insoluble solids	Physical State:	Slurry

10. STABILITY AND REACTIVITY**GENERAL**

This product is stable at normal temperatures and conditions of storage.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID

None have been identified.

HAZARDOUS DECOMPOSITION

None

HAZARDOUS POLYMERIZATION

Will not normally occur.

11. TOXICOLOGICAL INFORMATION**DATA FOR MICROPLANAR™ CMP9001™****INHALATION**

No information is available.

EYE CONTACT

No information is available.

SKIN CONTACT

No information is available.

INGESTION

No information is available.

GENOTOXICITY

No information is available.

TARGET ORGANS

Eyes and skin

12. ECOLOGICAL INFORMATION

DATA FOR MICROPLANAR™ CMP9001™

FATE

Contains inert mineral product that is insoluble in water and settles easily.

AQUATIC TOXICITY

No information is available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Consult 40 CFR, Parts 261 and 268, State, and local regulations for guidance on disposal of this product. Incineration at a facility with appropriate permits or authorizations is the recommended method of disposal.

CONTAINER DISPOSAL

Empty containers retain product residue. Observe all hazard precautions. Do not distribute, make available, or reuse empty containers except for storage and shipment of original product. Remove all hazardous product residue, and puncture or otherwise destroy empty containers before disposal.

14. TRANSPORT INFORMATION

IMO/ICAO/IATA

Proper shipping name	Not regulated
Hazard Class	None
Identification number	None
Packing group	None
Labels required	None
IMDG page number	None

15. REGULATORY INFORMATION

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Components of this product are listed on the TSCA Inventory.

We recommend you contact local authorities to determine if there may be other local reporting requirements.

SARA TITLE III (Superfund Amendments and Reauthorization Act)

311/312	None
Hazard	
Categories	

313

This product contains no substances that are subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

CERCLA (Comprehensive Response Compensation and Liability Act)

Not reportable.

We recommend that you contact local authorities to determine if there may be other local reporting requirements.

16. OTHER INFORMATION

Because the long-term human health effects from exposure to MICROPLANAR™ CMP9001™ have not been fully evaluated, exposure should be kept to the lowest level possible.

This material is for industrial use. Use only under the supervision of a technically qualified individual.

LABEL INFORMATION**NFPA CODES**

Health	1
Fire	0
Reactivity	0
Specific Hazard	None

REVISION SUMMARY

Rev. New	Initial MSDS
Prepared by:	Steven C. Dawson, CIH Manager, Industrial Hygiene & Health

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